DOD Qualification Working Group

Final Report

December 2000

Attachment 1

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I. Introduction

Background

A Qualification Working Group (QWG) was formed at the request of Mr. Gregory Saunders, Director, Defense Standardization Program Office (DSPO). Working group membership was multi-disciplined and extended beyond the normal standardization community. Representatives from industry and third party organizations were invited to participate where appropriate. Members and participants are listed in Appendix A. The QWG's mission was to examine the adequacy Qualification-related policies, processes, and practices in the light of the evolving acquisition environment and to recommend appropriate changes where necessary.

The last significant reassessment of the DoD Qualification Program occurred about 15 years ago. Section 2319 of the FY 1984 Authorization Act was enacted due to small business complaints that the Qualified Parts List (QPL) program restricted competition and qualification requirements were not being enforced. The resulting changes formed the framework for the current qualification program. This was the last significant reassessment of the DoD Qualification Program. The current qualification program was created for a significantly different acquisition environment than that which exists today.

MilSpec Reform, Acquisition Reform, and Civilian/Military Industrial Integration have profoundly changed the environment in which the qualification program operates. The working group was formed to evaluate the relevance and adequacy of the current program and to determine how the program can be improved to better serve its customers throughout the acquisition community. The group was also tasked to recommend changes to policies and procedures necessary to make the DoD's Qualification Program a valuable and responsive tool for defense acquisition.

The group held six meetings. The initial meeting convened on August 24, 1999 and the final meeting was held on April 27, 2000. The working group concluded that while the Qualification Program lacked adequate resources, it's policies, processes, and procedures were fundamentally sound. The group recommended several improvements that are presented in the body of this report. Additionally, the QWG may be reconvened at a later date as a drafting committee to develop a new guidebook on qualification.

Authority

Qualification is a procurement-related process authorized in law by statute 10 U.S.C. Section 2319 and 41 U.S.C. 253(c). It is applied consistent with Federal Acquisition Regulation (FAR) Part 9 – Contractor Qualifications, Subpart 9.2 - Qualifications Requirements. Department of Defense qualification requirements are defined in the Defense Federal Acquisition Regulation Supplement (DFARS) subpart 209.2 – Qualification Requirements. The Qualification Program is implemented within the Department of Defense through DoD 4120.24-M, Defense Standardization Program (DSP) Policies and Procedures, Appendix AP2, Qualification. DoD 4120.24-M implements 10 U.S.C. Section 2319 by providing procedures for the establishment and

maintenance of the DoD qualification program and associated Qualified Products Lists (QPL) and Qualified Manufacturers Lists (QML). The Defense Standardization Program Office (DSPO) is the responsible and controlling authority for qualification policy and for the DoD Qualification Program.

Definition

Qualification is a formal comprehensive process that verifies that a product design meets the specified performance, quality and reliability requirements. The process is completed independent of procurement to avoid unnecessary delays while affording off-the-shelf procurement of critical high confidence level items. The process can include product design verifications, raw material controls, manufacturing and quality process controls and specific initial and periodic testing requirements.

Products, manufacturers, and suppliers that have been successfully evaluated through the qualification process are listed in an appropriate list that is available to buyers to assist them in their buying decisions. These lists include Qualified Products Lists (QPL), Qualified Manufacturers Lists (QML), and Qualified Suppliers Lists (QSL).

A Qualified Products List (QPL) is a list of products or families of products that have successfully completed the formal qualification process that examines, tests, and verifies that a specific product design meets all the applicable specification requirements.

A Qualified Manufacturers List (QML) is a list of manufacturers' or distributors' facilities with a defined set of processes, worst case designs and/or materials that have been successfully evaluated through a formal qualification process to verify that the end product's performance, quality, manufacturing, and design will meet all the applicable specification requirements.

A Qualified Suppliers List (QSL) is a list of manufacturers, distributors or suppliers that have successfully completed a documented set of quality program requirements to determine the acceptability of the facility and product or family of products.

Charter

The QWG received a broad charter to review all aspects of the qualification program. The desired output at the end of the process was policy recommendations, with supporting rationale, that could range from very minor (current program needs little or no changes) to major (a completely new qualification program).

Scope

The group took a "clean sheet" approach with nothing off the table, including the possibility of recommending changes to applicable laws. The QWG considered what the DoD qualification program customers needed and what the program should do in the new acquisition environment. The working group used facilitated meetings and a core group to discuss issues and make decisions. The core group had the ability to bring in experts to contribute as needed.

II. Findings, Conclusions, and Recommendations

The working group explored many issues relating to qualification over the course of it's six meetings. They found qualification to be an essential and valuable tool for quality management and procurement. The group found that each Service or Agency was using qualification in a unique and tailored way to best meet its own requirements. Generally, existing qualification policies, processes, and practices were considered adequate in definition and scope. The qualification program overall was determined to be sufficiently broad and flexible to satisfy the users wide ranging requirements without substantial changes. Additionally, no changes are needed or recommended in the governing statutes or in the FAR or DFAR guidance documents.

Issue 1: Inadequate Resources.

The group agreed that the single most pressing issue facing the qualification community was the lack of sufficient resources to adequately staff the program and maintain the lists. In the face of constantly shrinking resources maintenance tasks are delayed and lists become outdated. Several potential solutions were discussed. The first and most obvious solution was to increase resources to support the qualification requirements. While resource increases would be very difficult in the current tight budget environment, additional resources are essential.

Recommendation: DSPO explore the possibilities of additional resources supported by specific justifications prepared by the Services and Agencies. DSPO and Air Force ensure that the implementation phase of the Standardization Strategic Plan addresses resources for qualification. The Services and Agencies determine and quantify the costs of qualification activities and assess how tasks might be done for less cost.

Issue 2: Improved Guidance for Qualification Decision-Makers.

Short of additional resources, the team considered other strategies to make more efficient and effective use of existing resources. As skilled and knowledgeable qualification practitioners leave the discipline they are often not replaced or they are replaced with less experienced people. Members agreed that better guidance was needed to set up qualification programs. One strategy the team considered at length was to further codify and standardize the qualification process to enable less experienced people to perform qualification work using "cookbook" guidance. This approach would seek to document the qualification practitioner's "thought" processes. Such guidance could be of considerable value for training and to support qualification-related decision-making by engineers.

The group explored various approaches to further codify and standardize the use of qualification. A criteria matrix was prepared to structure qualification across the broad spectrum of possible applications. However, after considerable effort the team concluded that the matrix-based "cookbook" approach to qualification was too prescriptive and inflexible. Qualification is very complex covering a wide range of items and situations. Flexibility is essential for future qualification applications.

Recommendation: DSPO develop a qualification guidance document (SD-XX) by end CY2000, based on the matrix approach to assist users without being prescriptive. The document must clearly define the process for approval of qualification. The following format for the new SD-XX was proposed and accepted. DSPO will use this format as the starting point for the new document.

a. **Introduction** - Provide general information regarding qualification.
b. **Scope and Purpose**.
c. **Qualification vs. Quality Assurance**. Show the difference between traditional QA monitoring programs, first article testing, and qualification. Illustrate how qualification is different from other quality provisions.
d. **Process** – Provide a clear process for selecting various ways of documenting specific qualification programs criteria for selection. Provide the pros and cons of each alternative. Provide examples that support the rationale and the discriminators.
e. **Examples** – Provide clear examples from the various programs. (For example, TACOM's QSL Program and Army-AR's MIL-STD-100 Drawing Qualification Program; NAVSEA's QPL Program, NAVAIR's Critical Parts Program and NAVAIR's QML-28870 Program; Wright-Patterson's NGS with qualification program and AF QPL Program; DSCP's QSL Program, DSCC's QML and QPL Program.)
f. **Rationale** – Document the reasons for choosing the specific type of qualification program (as illustrated in the examples above); provide the characteristics of the actions necessary to implement the program; show how it must be monitored, and discuss the pros and cons.
g. **Decision Matrix** – Provide a matrix that contains salient characteristics and actions to be considered in developing a specific qualification program (such as QPL, Army and DLA QSL, MIL-STD-100 Drawings, NAVAIR Critical Item Program).

Issue 3: Inadequate Maintenance of Qualification Lists.

The group found that qualification lists are not adequately maintained or updated. This shortfall is primarily a result insufficient resources, but improvement is essential. Inadequate maintenance increases the risk of buying non-conforming material and erodes the credibility of the qualification program. Better enforcement of maintenance requirements could improve the situation. However, greater enforcement might exacerbate the resources problem for some organizations.

Recommendation: DSPO redesign the qualification lists and related databases to include required recertification dates for all individual listees. Implement this change over a thirty month transition period. Require the elimination of all expired entries from the lists (with proper notification to all parties.) Automate this process to the degree possible. Require the qualifying activity to certify that the requirements are met for each update of the list.

Issue 4: Inadequate Management of Qualification on Some Non-Government Standards (NGS).

Some Mil-Specifications with qualification were converted to NGS. In some instances the NGS item markings remained the same as the markings used for earlier military qualified items. Some QWG members are concerned that some NGS managed qualification programs lack the rigor and discipline to assure that the NGS items meet government requirements. The use of identical markings is a significant problem because there is no way to determine which products meet government qualification requirements and which do not.

Recommendation: DSPO work with NGS bodies and industry to seek an acceptable solution. This may include the use of a separate trademark for military items only. DSPO draft a policy statement that it is DoD policy not to accept items under qualification unless conforming parts are clearly identified.

Issue 5: Automating the Qualification Process.

Qualification is a labor intensive manual process. Significant improvements in efficiency and effectiveness are possible through increased automation. The QWG identified several areas where automation could improve processes and use resources more effectively.

Recommendation: DSPO and the DepSO's work together to enhance the existing automated systems such as ASSIST and to add new automated capabilities that will simplify and streamline the qualification system.

Issue 6: Expanding the Criteria for Qualification.

The criteria for establishing a qualification requirement are tightly restricted to items that met the following criteria.

- long test times
- complex test equipment
- repetitive testing
- expensive testing
- impossible to test
- classified as safety critical
- classified as survival, emergency/or life support equipment
- critical such that failure of the item could potentially threaten human life
- classified as flight, nuclear, biological, or chemical safety or Sub-Safe item.

These defined criteria cannot anticipate all justifiable reasons for qualification that could benefit the government or be in the government's best interest. The working group recognized that important opportunities are lost where items do not meet the defined criteria. Greater flexibility should be available coupled with tight controls. Expanded qualification criteria to improve quality, improve acquisition, or save money should be available. Properly designed these could better serve the governments evolving needs while maintaining adequate controls over the qualification program. A process is needed to enable such compelling reasons to receive a fair, impartial review. Performance, quality and reliability improvements can have major economic consequences for the DoD and a method is needed to enable the DoD to realize these savings through qualification.

Recommendations: DSPO expand the criteria for establishing qualification to include items where "performance, quality and reliability of the item is critical and the consequence of a failure may be catastrophic to mission, equipment safety and/or life." In order to establish a qualification both "critical" and "catastrophic" must be met. The key is risk reduction. The consequence of the failure is what is most important.

Also, DSPO expand the criteria to include instances where there is a clear and compelling reason for qualification other than the specifically defined criteria. These compelling reasons could include business, product improvement, cost, or other reasons. An example might be a qualification requirement resulting in substantial economic benefit to the government." In cases where none of the defined criteria apply, but a compelling reason for qualification exists, the reasons must be clearly described and fully justified before being approved by the controlling authority.

Finally, DSPO document the rationale for justification to ensure that practitioners clearly understand how and where qualification may be applied without adverse impact on competition.

Issue 7: Treatment of Qualification that is Not Independent of Procurement.

During the course of deliberations the team considered several qualification-type activities that were not independent of procurement. That is, these activities were directed at assuring or improving the quality of items that were already under contract and/or part of a weapon system program. While these activities may involve testing and evaluation activities similar to qualification they are better characterized as quality assurance rather than qualification (see discussion in Section III).

Recommendation: DSPO maintain a clear line of separation between qualification and quality assurance activities. Qualification must be independent of procurement. Activities that are not independent of procurement must remain outside the qualification program. DSPO provide examples in the proposed SD-XX guide that will clearly define the differences between qualification and quality assurance activities for practitioners and decision-makers.

Issue 8: Status of Drawing-based Qualification

The working group considered qualification-type activities that were based on drawings or similar documents for items. These activities were directed and assuring or improving the quality of items that were described by documents other than specifications. Some testing and evaluation activities for these products are independent of procurement and similar to qualification. The question was whether these activities should be part of and governed by the qualification program. The QWG decided that qualification is based on specifications and standards and that item described by documents other than specifications and standards, even when they involve quality management activities similar to qualification, must remain outside the qualification program. An exception to this is the Standard Microcircuit Drawing (SMD) program. SMDs are a means to describe and subsequently procure microcircuits to MIL-PRF-38535 and MIL-PRF-38534 for military systems using a standardized drawing instead of a slash sheet.

Recommendation: DSPO maintain a clear line of separation between qualification, which is specification-based, and quality management activities for items that are not described by specifications. DSPO provide examples in the proposed SD-XX guide that will clearly define the differences between specification-qualification and drawing-based quality management activities.

Issue 9: Definition of Qualification-related Terms.

During the course of team deliberations some effort was expended to reach consensus on the definition or meaning of various qualification-related terms. The discussions demonstrated that differences exist throughout the qualification community regarding fundamental terms. The QWG agreed that a glossary of terms was needed to assure complete understanding of guidance and to preclude miscommunication.

Recommendation: DSPO include a glossary of qualification-related terms in the proposed new SD-XX guidance document.

Issue10: Recognition and Registration of Third Party (Commercial) Qualification Activities.

Increasingly third party organizations are involved in quality-related accreditation, certification and qualification type activities. While some third party accrediting organizations have existed for many years, many new organizations are being created to address new aspects of quality management. The evolving acquisition environment combined with increasingly tight budgets raises the questions of if and when government use of third party certifying bodies to perform qualification activities might be in the best interest of the government.

Recommendation: DSPO undertake a long term effort to define how third party or commercial qualifying activities could be recognized and registered for government use. DSPO determine policy issues, requirements, and language needed to address DoD acceptance of third party organization for all tiers of qualification (registration, certification, accreditation). Also, DSPO define criteria for how and when third party organizations might be appropriately used to meet government needs for qualification. Finally, DSPO work with NIST and ANSI to consider possible future directions, including the essential elements of a potential memorandum of understanding (MOU). Services and Agencies assist and work with DSPO in developing policies and approaches.

Issue 11: Streamlining the Process of Becoming Qualified.

Existing policy governing qualification lacks flexibility for using existing data to satisfy qualification requirements. In the evolving acquisition environment more and more relevant data, such as ISO-9000 data, is readily available. The QWG addressed how and when such data could be used when data is available and directly related to the qualification process. Not using such data increases qualification time and costs for both suppliers and government. However, using such data might put small business at a disadvantage.

DSPO provided, and the QWG approved, the following language to revise DoD 4120.24-M, APPENDIX 2, paragraph AP2.5.6.3 to allow use of existing data.

"Qualification test data (excluding first article data) generated by the perspective QPL/QML manufacturer for internal product or process qualifications or for commercial or industrial products or process qualifications may be use by the qualifying activity (QA) as a basis for qualification approval when the QA determines that satisfactory objective data exists which clearly shows the QA that the products will meet all aspects of qualification as determined in the applicable military specification requirements. The QA shall review all data to assure the data meets or exceeds all qualification requirements and that all specified performance, quality, reliability and testing requirements will be met or exceeded."

The SD-6, Chapter 4, Test Policy paragraph will also be changed to reflect this wording. No change is required in statute/FAR/DFARs since these documents do not address the use of existing data.

The following legal reasons were cited for excluding "first article" data in the proposed language. In the past DoD had used the first article test data to support qualification. Small business complained to Congress that the Department was specifying qualification in specifications but was not enforcing the requirement. As a result a waiver requirement was established to be invoked whenever first article data is used for qualification. "As stated in the public law and in the DFARs, qualification can only be waived when the preparing activity determines that the instant procurement situation is an emergency. Procedures in DoD 4120.24-M must be followed in requesting the waiver. If qualification is waived in other than an emergency situation, qualification shall be deleted immediately from the specification until such time as it is submitted and approved. Thus, the only time first article test data can be used as a basis for qualification is when the preparing activity has approved a waiver based on an emergency situation. Otherwise, qualification has been voided."

Recommendation: DSPO streamline qualification policy to allow use of existing data whenever available and appropriate. DSPO determine policy issues, requirements, and language needed to address the use of existing data. Also, DSPO define criteria for how and when the use of available data might be appropriate to meet government needs for qualification.

III. General – Qualification Policy and Practice

The qualification program remains very relevant in the new acquisition environment and it is meeting the needs of the customers and suppliers of qualified products. The need for qualification is as great today as ever. Acquisition cycle times continue to shrink and therefore the adverse impacts of long product testing times are multiplied. Supply chain management is reducing the amount of inventory needed in supply systems increasing the need for rapid availability of product with assured conformance to requirements. Technological change is accelerating making quality and conformance management more difficult. Qualification is an important and effective quality management tool in the face of these challenges.

Qualification is limited to specific products and material to minimize costs and impacts on competition. In today's evolving acquisition environment the government would be better served by a more flexible approach to qualification. Changes recommended by the QWG add this flexibility.

Qualification vs. Quality Assurance

Qualification and quality assurance are related activities that are used to provide assurance that an item purchased from a contractor will meet the applicable specifications. A key difference between them is that qualification takes place outside of any contract, while quality assurance takes place as part of a given contract.

The qualification process includes a comprehensive set of criteria that are reviewed by the qualifying organization. The manufacturer's design process, manufacturing process, quality assurance process, and product testing are among the elements reviewed during a qualification process. By performing comprehensive reviews independent of a contract, the Government is able to establish a set of contractors that have demonstrated that they have the capability to manufacture the applicable products. Contracting officers are then able to select a contractor from this set without having to perform lengthy, costly, and repetitive qualification reviews on each potential contractor. In addition, the likelihood that a comprehensive quality assurance program could be developed and sustained through individual contracts would be remote for complex and dynamic technologies such as microelectronics.

Some qualification programs may only establish that a manufacturer at one point in time, was able to manufacture a product that meets the applicable requirements. In these cases, the qualification program does not necessarily prove that a manufacturer can produce an acceptable product under a given contract. In these cases, quality assurance procedures in an instant contract may be used for this purpose. If this occurs, the qualification requirement sshould be reviewed for retention. If the requirement is still needed, then the listing should be updated to reflect current and accurate information.Other new and more extensive qualification programs have been designed to cost effectively assure continuous compliance to requirements and a requisite level of performance, quality and reliability provisions exist. In these cases, additional quality assurance procedures are not needed and in most cases will be rejected by the industry base as adding cost without any quality and reliability improvements.

Contracts contain some form of quality assurance, ranging from a simple inspection for proper quantity and condition of the items, through statistical process controls and comprehensive first article testing. Quality assurance is used to determine contractual compliance with the item's specification. Quality assurance procedures provide confidence that the manufacturer can produce acceptable items for the instant contract. Because quality assurance procedures are applied under a contract, there are also contractual remedies available to the Government should the contractor fail to produce acceptable items.

Qualification and quality assurance are complementary processes that both seek to reduce the Government's risk of purchasing non-conforming items. Qualification is used under

circumstances that would make case-by-case detailed reviews and tests impractical or excessively costly, and where extra measures of assurance are desired due to criticality or safety of the item.

Below is a brief description of the general criteria for selection of QPL, QML, QSL and QA methods:

QPL: Should be used prior to contract award to validate a suppliers part/designed item meets technical requirements as defined in the applicable specification or standard under the following conditions. First, when validation involves complex and/or long lead time testing, for example life cycle testing. Second, compression of the acquisition process is required to achieve satisfactory customer support. Consideration of effective forecasting models or material requirements documentation should negate or substantially reduce accelerated acquisition requirements except in the case of surge demands. QPL is implemented on a part by part (or families of products) basis.

QML: Should be used prior to contract award to validate that unique manufacturing and/or material treatment processes, or new emerging processes from technological advancements being used will produce items that meet defined technical requirements under the following conditions. The processes qualified apply to multiple parts required by the procuring activity, resulting in cost savings during the acquisition process. At a minimum the savings realized through price reduction and/or acquisition process compression should offset the qualification costs or to reduce or eliminate long production lead-times when required to meet customer demand requirements.

QSL: Should be used prior to contract award to verify the supplier's capability to produce items/material that meet technical requirements and to ensure the supplier has an acceptable quality assurance system. This method should be used to correct existing quality problems when there's a limited supplier base and when the qualification expenditure is more beneficial to the Government than the expenditure required to identify reliable new sources or when implementing generally less costly preaward quality assurance methods have proved ineffective. A QSL may not exist with a QPL. QSL is relatively new concept implemented by local commands while QPL has its basis in the Federal Acquisition Regulation (FAR) and the Defense Federal Acquisition Regulation Supplement (DFARs).

Preaward QA: Procuring activities will include quality assurance methods during acquisition planning. Quality Assurance requirements should be tailored to meet the needs of each acquisition and cited in the solicitation and contract. Market research should be conducted prior to award to identify acceptable supplier base. Defense Contract Management Agency (DCMA) records of competitive suppliers past performance and procuring activities past performance databases should be used to rate suppliers in the source selection process, for example, the DLA Automated Best Value System. Evaluation factors in accordance with FAR 52.212-2 should be incorporated in the solicitation as deemed required by the managing Quality Assurance Specialists (QAS) to ensure a best value source selection. If additional information is required to determine the acceptability of a supplier, pre-award surveys should be conducted by procuring activity QASs and/or DCMA Quality Assurance Representatives to evaluate the supplier's quality control and assurance systems. These surveys should be used to make award recommendations to the contracting officer.

Below are examples of several contracting clauses when used properly and cited in solicitations minimize the risk of a poor source selection and are less expensive than qualification to minimize the risk of accepting nonconforming supplies.

- Bid Samples: (Reference FAR, subsection 14.202-4) Bidders are required to submit samples when characteristics cannot be adequately described in the applicable specification or purchase description. These samples are evaluated to determine conformance to customer requirements and generally demonstrate the suppliers capability to provide conforming supplies prior to award.

- Measuring and Test Equipment: (Reference DLAD 4105.1, contract clause 52.246-9004) Provides requirements for the contractors to demonstrate the adequacy for their equipment for both manufacturing and inspection/testing.

- Certificate of Quality Compliance (COQC): (Reference: DLAD 4105.1, Part 46.3, contract clause 52-246-9000). Requires the contractor to submit objective evidence that supplies are conforming to technical requirements.

These are just some examples of quality assurance methods that can be implemented in support of best value source selections. Although most of these clauses are actually implemented during contract performance, they serve to screen out poor performers when cited in the solicitation. For example, manufacturing process controls (reference DLAD 4105.1. paragraph 46.202-3(90), contract clause 52.246-9001). A potential supplier knows before bidding that they must implement these controls during contract performance and that these controls will be evaluated by DCMA. Most potential suppliers will not bid on a solicitation they know they cannot meet. First article testing requirements can also be cited in the solicitation informing potential bidders that they must demonstrate that the material used, manufacturing processes employed, and workmanship standards used result in manufacture of a product that meets technical requirements.

The bottom line is that procuring activities should consider during acquisition planning and incorporate in solicitations and contracts the most effective quality control/assurance methods in terms of both cost and risk to assure that the effects of alternative methods of supply and source selection competitively satisfy customer requirements.

NGS Qualification

Specification and Standards Reform has resulted in increasing government reliance on nongovernment standards (NGS) and also in a variety of situations where the government needs clear policy regarding its relationships and obligations concerning NGS qualification requirements. The QWG considered five NGS scenarios.

1. A nongovernment standard includes qualification and there is an industry-wide qualification activity.

2. A nongovernment standard includes qualification and there is a DoD qualification activity and there is no industry-wide qualification activity.

3. A nongovernment standard includes qualification and there is both an industry-wide qualification activity and a DoD qualification activity.

4. A nongovernment standard requires qualification and identifies a DoD activity as the designated qualification activity.

5. The NGS does not include qualification but contains adequate technical requirements and DoD has a justified need for qualification according to the normal DoD qualification process.

Each of the scenarios has a different policy solution. **First, where a nongovernment standard includes qualification and there is an industry-wide qualification activity.**

Policy allows and encourages this situation. Where a nongovernment standard meets both the DoD's needs and those of commercial industry, and where an industry qualification activity adequately assures compliance with the NGS qualification requirements, this situation is the definition of adopting commercial practices. As a practical matter, the adopting and qualifying activities need to evaluate and periodically review both the standard itself and the industry qualification activity to determine that they meet DoD's requirements. There should be a strong presumption that they do, and only clear evidence to the contrary should lead DoD to anything other than adoption and use of both the standard and the qualification list. A finding that this is not the case must be documented. Disagreements among interested DoD activities shall be resolved using established channels.

Second, where a nongovernment standard includes qualification and there is a DoD qualification activity and there is no industry-wide qualification activity.

Policy allows this. The first situation is preferable to the second because it is a more complete adoption of commercial practices and conserves government resources. Sometimes, however, no industry qualification activity exists and the DoD concludes that it needs to act as the qualification activity in order to support DoD acquisition. Before introducing a DoD qualification requirement, DoD must adopt the NGS. This situation occurs when a NGS includes qualification provisions but commercial practice leaves implementation of qualification to the customer. Key in this situation is a DoD decision by the customer, adopting, and qualifying activities that qualification is necessary to support DoD acquisition. The fact that industry may benefit from this is simply a collateral benefit, not a rationale.

Third, when a nongovernment standard includes qualification and there is both an industry-wide qualification activity and a DoD qualification activity.

There is no policy prohibition of this, but it is strongly discouraged. This situation occurs where the commercial qualification activity has been examined and clearly found to be inadequate to ensure compliance with the NGS qualification requirements. The customer, adopting, and qualifying activities must agree on the need for DoD qualification. Before introducing a DoD qualification requirement, DoD must adopt the NGS. Where this situation exists, the justification for maintenance of the DoD qualification activity must be documented and periodically revisited. Additionally, it is the responsibility of the DoD adopting activity and qualifying activity to make reasonable attempts to work with the nongovernment standards body and the industry qualification activity to try to bring the commercial practice up to standards sufficient to assure compliance.

Fourth, when a nongovernment standard requires qualification and identifies a DoD activity as the designated qualification activity.

DoD adoption or use of such NGS should be prohibited by policy. DoD may establish a qualification activity (see 2) but it should not be mandated by a NGS. If a nongovernment standards committee tries to impose such a requirement, the DoD should object and try to change the language to something more acceptable (e.g. "…the qualifying activity shall be as identified by the buying activity…"). Failing removal of the requirement, the DoD should not adopt or use the resultant standard. It is not an unusual situation for a DoD qualifying activity to be the only one in existence, however it is entirely inappropriate for a nongovernment standard to attempt to mandate that a DoD activity perform this service.

Fifth, when the NGS does not include qualification but contains adequate technical requirements and DoD has a justified need for qualification according to the normal DoD qualification process.

By policy qualification requirements must be called out in a specification. Qualification requirements in the NGS are preferred. However, when this is not possible then DoD may issue a MILSPEC calling out the NGS and establishing qualification requirements. DoD should work with the NGS activity to incorporate qualification requirements in the NGS.

Qualification List Maintenance

While the QPL was originally designed as a procurement tool to deal with long lead times it evolved into a program that provides buyers with assurance that items comply with specified requirements (i.e. performance, quality and reliability). The QPL and QML are often viewed as seals of approval by contracting officers. This view makes proper maintenance of the lists absolutely essential.

However, qualifying organizations suffer resource constraints that frustrate the maintenance process. As a result, listed vendors may not be updated or recertified in a timely manner and new vendors may not be added to the lists quickly. List maintenance is particularly important for areas involving rapidly changing technology to insure

continued compliance. DSPO and the QWG are committed to improving the quality of maintenance.

QSL Integration into the Qualification Program

The Qualified Suppliers List (QSL) evolved outside of the official qualification program to improve quality and assurance in areas not addressed by the program. The QSL was first used in 1991 in a pilot program in the metals area. Then in 1994 the use of QSL was extended to metals across the board. A QSL is based on commodity-specific requirements, most of which are ISO-based. They are applied on an NSN-by-NSN basis and do not contain inspection-related quality assurance provisions. The key difference between QSL and QML is that the QSL is used where there are only general or limited engineering documents/specifications available while the QML is associated with specific specification.

QSLs have achieved valuable improvements and interest in QSL use is growing. The QWG determined that the QSL should be included in the official qualification program. Doing so makes the approach more widely available while simultaneously bringing QSL under the guidance and control on the program.

IV. Summary

The working group was tasked in its charter to address the following questions:

1. Is the purpose of qualification still relevant in the new acquisition environment? Are there other purposes that can or should be served by qualification?

   The answer to both questions is "yes." The QWG recommended policy changes that expand qualification to permit its use in additional ways where it is clearly justified, in the best interest of the government, and with no adverse impact on competition.

2. Should the usage of qualification be changed from the tightly controlled justification regime defined by DoD 4120.3-M to a more liberal usage?

   The answer is yes. A variety of needs exist to assure compliance to specifications for products that did not meet the tightly controlled justification regime defined by DoD 4120.3-M. In several instances qualification-like approaches, such as QSL, were already in use outside of the official qualification program to meet these needs. The QWG recommended policy changes to expand qualification to permit more liberal usage while maintaining essential guidance and controls.

3. The QPL often plays an important role in logistics support. Is it time for this role to evolve? How would changes or improvements in the qualification program affect logistics support?

   The role of qualification in logistics support is increasing in relative importance. The vast majority of qualified items are managed by the Defense Logistics Agency (DLA). Additionally, the focus is on sustaining and upgrading existing

systems rather than on new weapon system in development. This change is important and DSPO and the DepSO's will need to monitor these changes to assure that qualification continues to serve its customers well. However, the QWG found no compelling need to change the existing qualification program in order to meet the needs of the logistics support community.

4. DoD is increasing its usage of Contractor Logistics Support (CLS). How does qualification interact with CLS for existing systems? How does qualification interact with developing systems that will rely on CLS?

   Contractor Logistics Support (CLS) is growing and evolving. Many questions still remain unanswered concerning where CLS will eventually go and how the qualification program will play in the CLS environment. As logistics support decision making authority migrates from the government to the logistics support contractor issues of configuration control and compliance to specifications become potentially more complex. No major qualification-related issues concerning CLS were identified by the QWG. However, this area will require continued attention from DSPO and the DepSO's.

5. State governments, commercial companies, and other bodies appear to be increasing their use of qualification. What lessons and best practices can be learned that might apply to improving the DoD qualification program?

   While the use of qualification by State governments and commercial companies are increasing, most appear to be modeled on the government qualification program. While there may be some best practices in these efforts and lessons learned for government, the government program generally sets the benchmark. DSPO will increase its dialogue with industry and other bodies, particularly through associations such as NIST and ANSI. Relevant lessons learned and best practices will be routinely brought back and integrated into the qualification program

6. The qualification process requires a resource commitment to effectively maintain performance, quality and reliability. The use of qualification may decline as defense resources are further constrained. How can the qualification process be made more efficient and effective?

   Qualification requires a resource commitment to effectively maintain performance, quality and reliability. Significant improvements in efficiency and effectiveness are possible through increased automation. The QWG identified several areas where automation improve processes and use resources more effectively. DSPO and the DepSO's will work together to enhance the existing automated systems such as ASSIST and to add new automated capabilities that will simplify and streamline the qualification system.

7. Qualification requirements statements are currently incorporated into and made part of the applicable military specifications. Can and should qualification requirements be removed from the specifications and made separate but useful documents?

Qualification requirements will remain linked to specifications. The QWG found no compelling reason to removed qualification requirements from the specifications and make them separate documents.

8. The DoD is migrating toward greater use of non-government standards (NGS). How can third party qualification (e.g. Underwriters Laboratory) be put to good use within the DoD qualification program? And how can the government determine what constitutes a "suitable" third party laboratory for conducting qualification testing?

   The increasing use of NGS, the growing availability of third party qualification bodies, and the shrinking pool of government qualification resources makes using third party qualification an important government option. The use of this option where third party qualification is compatible with government requirements and in the government's best interest is inevitable. DSPO will undertake a long term effort to define how third party or commercial qualifying activities could be recognized and registered for government use. DSPO work with NIST and ANSI to consider possible future directions for third party involvement. DSPO will identify policy issues, requirements, and language needed to address DoD acceptance of third party organizations, will the legal and liability implications of using third party qualification, and will define criteria for how and when third party organizations might be appropriately used.

9. How should the use of qualification statements in NGS be handled in dual use (military and commercial) situations?

   Dual use qualification situations will likely increase as the government continues to migrate toward commercial products and practices. Conflicts will arise where government needs and NGS practices diverge. This conflict is illustrated by the use on some parts of identical markings that make it impossible to differentiate between those parts produced under the government qualification program and those produced under the NGS qualification program. This matters when the management of the NGS program no longer satisfies the government requirements of compliance assurance. When the government's qualification requirements diverge from those of an NGS an acceptable solution will be sought, but where no acceptable solution is found the government reserves the option to reestablish its own qualification for the item.

10. What can be done to bring about increased civilian/military industrial integration in qualification?

    Increased civilian/military industrial integration in qualification is inevitable. What is required is deliberate and focused effort to assure that the integration is as smooth and painless as possible. Increased dialogue between government and industry is needed to identify mutual needs and issues and to chart an optimum path to the future. DSPO will initiate increased dialogue for this purpose with NIST, ANSI, and other concerned associations to seek joint strategies and approaches to satisfying both government and industry needs for qualified products.

11. What should the qualification program look like in the future to best meet the needs of the 21st Century acquisition community?

The current government qualification program fundamentally meets today's needs. The QWG has recommended several changes that will make the program more flexible and agile to satisfy future needs. The qualification program is severely resource constrained such that maintenance and other requirements are not being adequately accomplished. Resources will continue to be constrained for the foreseeable future. The QWG has recommended increased automation of qualification functions to ease the resource requirement shortfall. The movement toward civil/military integration will continue and with it the need for greater integration in qualification and greater government reliance on third party qualification. The government will maintain qualification for government unique items and where it is essential to satisfy government requirements. DSPO and the DepSO's will routinely assess governments need for qualification and systematically improve the program to meet emerging requirements.

The government qualification program for the 21st Century will be streamlined, automated, flexible, lean, agile, and integrated with the NGS systems to the degree practical. It will be fully engaged with its customers and community through responsive web-based systems that will evolve quickly to their changing needs.

Appendix A: QWG Members and Participants

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